

XANTHANDRUS COMTUS (HARRIS) (DIPT.: SYRPHIDAE) NEW TO THE ISLE OF MAN AND WITH NEW PREY RECORDS

¹FRED D. BENNETT AND ²STEVEN M. CRELLIN

¹ *Crofton, Balldhuon Road, Laxey, Isle of Man IM4 7NA.*

² *Shearwater, The Dhoor, Andreas Road, Lezayre, Ramsey, Isle of Man IM7 4EB.*
(E-mail: smcrellin@hotmail.com)

Abstract

Xanthandrus comtus (Harris) (Dipt.: Syrphidae) is reported from the Isle of Man for the first time. The fly's larvae were found to be predated the larvae of the Carnation Tortrix moth *Cacoecimorpha pronubana* (Hb.) (Lep.: Tortricidae), also reported for the first time from the Isle of Man, and possibly another tortricid – *Lozotaenia forsterana* (Fabr.) feeding on ivy *Hedera* growing on a garden wall. During the course of this study, a third tortricid, the Light Brown Apple-moth *Epiplatyas postvittana* (Walk.), was reared on the island for the first time.

Introduction

Xanthandrus comtus (Harris), whose larvae are predators of certain lepidopterous larvae, is not recorded in the most recent published list of the Syrphidae of the Isle of Man, (Crellin, 1985 — note that in Stubbs & Falk, 2000, Second Supplement, and in Stubbs et al, 2002, authorship of this paper was erroneously credited to A. Moore the author of the following paper on an unrelated topic in the journal cited). Since then, SMC has collected adults on several occasions, some of which appear in Ball & Morris (2000), and FDB has found larvae preying on the larvae of an unreported tortricid host and reared them to the adult stage.

Collection Records

The occurrence of *X. comtus* appears to be sporadic and unpredictable; on the Isle of Man, over the past 15 years, adults have been observed or captured only occasionally, (Table 1). These records are all from the Ramsey area, where observations have been concentrated; given the same effort it is probable that this syrphid would prove to be widespread on the Island.

Table 1. Collection and sighting records of *Xanthandrus comtus*.

Locality	Grid Reference	Date	Sex	Plant Association
Ash Grove, Ramsey	SC 445952	06.viii.1986	female	-
Ash Grove, Ramsey	SC 445952	20.ix.1987	female	-
Abbeville, Sulby	SC 403947	17.x.1987	female	-
Ash Grove, Ramsey	SC 445952	27.vii.1998	female	-
Wildlife Park	SC 364944	28.viii.1999	female	On <i>Heracleum spodylium</i> umbel
Mayhill, Ramsey	SC 451939	13.x.2002	female	On <i>Hedera</i> leaf

Prey and rearing records

On 15 January 2002, a collection of webbed leaves from an ivy *Hedera* covered garden wall on the Minorca Hill Road, Laxey (OS grid reference SC 441839) contained more than 60 leaf-webbing larvae and two syrphid larvae which matched the photographs of *X. comtus* in Rotheray (1993). One of the syrphid larvae, placed in a container with three large larvae of the tortricid *Lozotaenia forsterana* (Fabr.) between webbed ivy leaves, collected earlier at Victoria Road, Douglas, consumed them within a forty-eight hour period, another three in the following 48 hours and two more before forming a puparium on 3 February. The other larva which had been left in a large rearing container with the foliage and tortricid larvae from Minorca Hill (initially thought to be *L. forsterana*, but see below) also pupated on 3 February. A male emerged from the latter on 9 February and a female from the former on 10 February.

A collection of webbed ivy leaves from Minorca Hill on January 26 yielded approximately 80 leaf-webbing larvae and one small, one medium and one large larva of *X. comtus*. A further collection of webbed ivy leaves on 7 February contained approximately 75 tortricid larvae and one medium syrphid larva. No syrphid larvae were found in collections of 50 or more tortricid larvae from the same site on 24 February, 14 March and 14 April or from a collection on 30 April that yielded 20 larvae and 30 pupae of the leaf-webber.

Most of the moths emerging from collections of webbed ivy leaves from several sites in Laxey (including Minorca Hill) and Douglas during 2000 and 2001 were *L. forsterana* with an occasional specimen of three other Microlepidoptera; the tortricids *Ditula angustiorana* (Haw.) and *Clepsis consimilana* (Hübner) and *Blastobasis lignea* Wals. (Lep.: Blastobasidae). However most adults emerging from collections from Minorca Hill made in 2002 were the Carnation tortrix, *Cacoecimorpha pronubana* (Hb.), a tortricid only reported from the Isle of Man in 2001 and not reared from any of the 2000 – 2001 ivy collections. Only an occasional adult of *L. forsterana* emerged from the January and February 2002 Minorca Hill collections.

Additionally a few specimens of *Epiphyas postvittana* (Walk.), a tortricid not previously reared in the Isle of Man, were present in the collections of 24 February and subsequent collections from Minorca Hill.

During 2002, *C. pronubana*, as well as *L. forsterana*, was reared from collections of ivy leaves from Finch Road, Douglas whereas only *L. forsterana* emerged from several collections from the Victoria Road, Douglas site during 2002. The three species of tortricids are polyphagous and are known to attack a wide range of herbaceous plants, shrubs and trees (Emmet, 1988). On ivy on garden walls both *L. forsterana* and *C. pronubana* lay eggs in batches often of 50 or more on the leaves and the hatching larvae feed usually in solitary fashion between overlapping leaves webbed tightly together and move from leaf to leaf. Feeding results in large unsightly patches of damaged leaves; the damage by one species is indistinguishable from that of the other.

SMC's most recent adult *X. comtus* capture was from ivy growing on a garden wall in Ramsey. The specimen, a female, was tubed from an ivy leaf in rather cool and damp weather. A subsequent visit by SMC found signs of webbed leaves, but no *X. comtus* larvae; the identity of the larvae causing the webbing was not ascertained.

Adults of *X. comtus* survive for extended periods in cages. The male emerging on 9 February and the female emerging on 10 February were held in a 20 × 20 × 30cm clear plastic vented container containing a "bouquet" of ivy foliage infested with laboratory hatched small larvae of *L. forsterana* and with honey droplets streaked on the sides of the container; water was sprinkled daily onto the foliage through a mesh panel in the cage top. The cage, held in the house in subdued light for most of the time, was placed near a bright light for an hour or longer each morning and evening. During these periods of exposure the adults took flight several times and hovered near the top of the cage for several seconds at a time. Neither courtship behaviour nor attempts to mate were observed which is not surprising considering the small size of cage and holding conditions. A male emerging on 24 February survived for 34 days in a similar cage.

Discussion

Xanthandrus comtus is reported for the first time from the Isle of Man, but it is well known in the British Isles (Shaw and Rotheray, 1990) and occurs as far north as Scotland (Rotheray and Bland, 1992). Although initially considered to migrate north annually during the summer evidence of the occurrence of a resident population over several years in Perthshire, Scotland has been documented (Bland and Rotheray, 1998). Our discovery of active larvae in January and February is substantial evidence that it is a year-round resident in the Isle of Man. *C. pronubana* has overlapping generations (Emmet, 1988); its apparent recent arrival in the Isle of Man, where larvae are present throughout the year, may enhance the year round breeding of *X. comtus*.

The only published records of prey for *X. comtus* for the British Isles that we are aware of are *Ancylis apicella* (D.& S.) (Tortricidae) on alder buckthorn *Frangula alnus* (Shaw and Rotherway, 1990) and *Caloptilia syringella* (L.) (Gracillariidae) on young ash *Fraxinus* trees (Rotherway and Bland, 1992 and Bland and Rotherway, 1998). These are from rural areas and from shrubs and trees. Our rearing from *C. pronubana* and possibly from *L. forsterana* on a vine *Hedera* on the wall of a village garden in the Isle of Man adds to the known host, type of host plant and habitat ranges of this syrphid.

Epiphyas postvittana has been extending its range nationally in recent years. Porter (2001), Pratt (2002) and Littlewood (2002) all show that the range of this Australian import, which was first recorded breeding in Britain at Newquay, West Cornwall, in 1936, has spread northwards and eastwards since 1980. Our records are further evidence of this trend.

Acknowledgements

K. P. Bland, National Museums of Scotland kindly identified the moths and G. D. Craine provided information on their distribution in the Isle of Man. Several members of the Hoverfly Discussion Group, (*syrphidae@nottingham.ac.uk*), offered helpful comments; these are appreciated.

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Stratiomys longicornis (Scopoli) Dipt.: Stratiomyidae) in East Sussex, VC 14

The Thames Marshes in northern Kent and South Essex are, perhaps, the current national stronghold for this conspicuous species and other locations were mapped by Drake (1991. *Provisonal atlas of the Larger Brachycera (Diptera) of Britain and Ireland*). It may, therefore, be worth mentioning here that on 10.vii.1999 I observed three specimens of *S. longicornis* on the flowers of wild carrot *Daucus carota* along the main roadway at Rye Harbour National Nature Reserve, at O.S. grid reference TQ 9418. These were accompanied by larger numbers of the much more widespread *Stratiomys singularior* (Harris).— Laurence Clemons, 14 St. John's Avenue, Sittingbourne, Kent ME10 4NE.